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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/631,954   | 07/30/2003  | M. Vikram Rao        | 2003-IP-010829U1    | 1780             |
| 7590   | 10/03/2005  |                      | EXAMINER            |                  |
| Robert A. Kent<br>Halliburton Energy Services<br>2600 South 2nd Street<br>Duncan, OK 73536 |             |                      | LE, HOA T           |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1773                |                  |

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/631,954             | RAO, M. VIKRAM      |  |
|                              | Examiner<br>H. T. Le   | Art Unit<br>1773    |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 18-26 and 29-59 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-17, 27 and 28 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/03</u> | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of claims 1-17, 27 and 28 in the reply filed on July 14, 2005 is acknowledged. Claims 18-26 and 29-59 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 14, 2005.

### *Claim Objections*

2. Claims 27 and 28 are objected to because they are directed to a subject matter that is not consistent with the subject matter on which they refer and depend on. Claim 27 attempts to recite "particulates of claim 18"; however, claim 18 is directed to a method.

### *Claim Rejections - 35 USC § 112*

3. Claims 27 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 27 and 28 have no antecedent basis. Claims 27 and 28 read, in part, "particulates of claim 18"; however, claim 18 is directed to a method.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by the commercial material with the trade name LYTAG. See the Bai Report ("Properties of lightweight concrete manufactured with fly ash, furnace bottom ash, and LYTAG") and also [www.lytag.uk.co](http://www.lytag.uk.co).

Claim 1: The Bai report describes LYTAG is a lightweight aggregate containing silica and alumina (Bai report, page 79, table 1). The specific gravity of LYTAG is 1.52 (Bai report, p. 79, table 1); All Lytag has a specific gravity from 1.5 to 2.2 ([www.lytag.uk.co](http://www.lytag.uk.co), under 'Health and Safety' section, Physical & Chemical Properties, hard copy of attached). Figure 1 at page 79 of the Bai report shows that LYTAG has a particle distribution of from 5 to 8 US mesh. LYTAG is porous (page 85). LYTAG has spherical shape. See also Lytag brochure, About Lytag. Also see link [www.lytag.co.uk](http://www.lytag.co.uk) under "About Lytag" (hard copy attached).

Claims 2-4: see the Bai report, page 79, table 1.

Claim 5: Lytag is made by pyro-processing fly ash. See the Bai report, page 78, second paragraph. Pyro is a combustion process, and fly ash is a carbonaceous material. See also, [www.lytag.co.uk](http://www.lytag.co.uk) under "Technical" (hard copy attached).

Claim 6: See the Bai report, page 79, figure 1. Also, [www.lytag.co.uk](http://www.lytag.co.uk), under "About Lytag" (hard copy attached).

Claim 7: Lytag has a compressive strength from 20 to 40 N/mm<sup>2</sup>, which is equivalent to 2900 to 5800 psi. See the Bai report, p. 83, last paragraph, last two lines; and figure 3.

Claim 8: Because Lytag is made by sintering fuel ash, its outer layer is vitrified. See [www.lytag.co.uk](http://www.lytag.co.uk), under "Technical" (hard copy attached).

Claims 9-17: See rejections to claims 1-8 above.

6. References not relied upon are cited as art of interest.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



H. T. Le  
Primary Examiner  
Art Unit 1773